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Cover: Immunofluorescence micrograph of a hippocampal brain section from an Alzheimer's disease patient showing that the TNF-α converting enzyme (TACE, stained in red) is strongly expressed in hippocampal neurons. The expression of this enzyme in neurons is surprising, as well as its localization to brain areas where senile plaques made of amyloid-β tend to accumulate (green stain). TACE may have a role in antagonizing amyloid-β production in human brains. See the article by Skovronsky et al., pages 40–46 of this issue.

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Cover: Photomicrograph of a section through the eye of a frog that received a heterochronic transplant. The blue stain reveals mature retinal cytoarchitecture. The host was at the late optic vesicle stage at the time of transplant. The donor tissue, from an embryo at early optic vesicle stage, can be identified by its green fluorescence. Both host and graft expressed the photoreceptor-specific marker XAP-1 (red fluorescent) during development, but at different times. In the tadpole the graft forms a wedge of cells well integrated into the host. Thus, despite maturing on different, autonomous, schedules the retina developed normally. See the article by Rapaport et al., on pages 129–141 of this issue.

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Cover: Sustained exposure to an agonist causes endocytosis of cell-surface nicotinic acetylcholine receptors, as demonstrated by pulse-chase labeling. Receptors on the surface of cultured myotubes were labeled with mAb 210 (green) at the beginning, and with fluorescent α-bungarotoxin (red) at the end, of a 3-hour exposure to the agonist carbachol. The abundant green-only labeled intracellular structures shown here, seen only rarely in control cells, represent collections of receptors that were internalized from the cell surface during the exposure to carbachol and collected in discrete intracellular compartments. See article by St. John and Gordon on page 212.

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